REMARKS

Claims

In the previous Office Action mailed July 26, 2005, the Examiner rejected claims 1 and 5-16 and commented on claim 27. However, claims 1, 5-17, 19, and 21-32 were pending in the application; thus it is unclear what the status is of claims 17, 19, and 21-32. The Applicant respectfully reminds the Examiner of his duty to respond to all pending claims. See MPEP 707.07(i) Each Claim To Be Mentioned in Each Office Action - "In every Office action, each pending claim should be mentioned by number, and its treatment or status given."

By this amendment claims 1 and 17 have been amended. Therefore claims 1, 5-17, 19, and 21-32 remain pending in the application.

Claim Rejections – 35 USC §103

Claims 1, 5-6, 9-12, and 14 were rejected under 35 USC 103(a) as being unpatentable over Cooperman et al, US 6,665,490 and in view of Wright et al, US 4,864,618. The rejection is respectfully traversed.

Cooperman et al. reference the same Xerox DataGlyphs that were distinguished from the present invention in the response to the previous office action with reference to Dymetman et al. See Cooperman et al. at col. 7, lines 7-8: "The markings can, for example, be Xerox DataGlyphs." Such DataGlyphs are described in the reference titled "Intelligent Paper" by M. Dymetman, and Max Copperman, in Electronic Publishing, Artistic Imaging and Digital Typograhy, Proceedings of EP'98, March/April 1998, Springer Verlag LNCS 1375, pp 392-406, hereinafter Dymetman et al.

Dymetman et al. disclose the use of Intelligent Paper defined as "standard sheets of paper entirely covered with printed marks, invisible to the human eye, but visible to [an optical pointer]" (page 393, third paragraph). Each sheet includes a *page-id*. The Intelligent Paper is then bought in bulk by, for example, a publisher, and visible graphic data is then printed over the invisible marks. See page 398, first paragraph: "...the natural tendency of publisher to buy Intelligent Paper sheets in bulk, so that it may be known by the first router that a certain number of consecutive page-ids are 'owned' by a certain publisher." The publisher must then manually associate each *page-id* with whatever graphic content the publisher chooses to print on the page corresponding to each *page-id*. After such manual association occurs, only then is a router able to associate coded data with a description of graphic data.

Such Intelligent Paper that requires manual association between a *page-id* and visible graphic data printed on the page is very different from the Netpages disclosed in the present application. Rather than requiring such manual association, the present invention enables an automatic association between coded data including an identity of a page and graphic data printed on the page. Such automatic association is possible because the same printer prints both the coded data and the graphic data. Such an automatic association between the spatial extent of the visible graphic data and the invisible coded data is now explicitly recited in the present claims. See claim 1: "*...wherein the visible graphic data and the invisible coded data are printed by the same printer and at the time of printing the computer system associates the coded data with a description of the graphic data.*"

The Examiner appears to have rejected the above specific limitations of claim 1 by inaccurately and inappropriately paraphrasing the limitations. On page 3 of the present office action the Examiner stated: "... and the computer system associates the location coordinates of each tag with at least some of the graphic data (Copperman [sic]; col. 7, lines 9-28; col. 8, lines 39-54; each page includes visible data, such as photographic image, text, and many tags, each tag being indicative page identifier and page location data associated with the visible data.") Although such citations to Cooperman may disclose the paraphrased limitation that was fabricated by the Examiner, they clearly do not disclose the actual limitations, reprinted above, that appear in claim 1.

The Applicant thus respectfully reminds the Examiner that all claim limitations must be considered. See MPEP 2143.03: "All Claim Limitations Must Be Taught or Suggested. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). 'All words in a claim must be considered in judging the patentability of that claim against the prior art.' *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)."

Here, for the reasons discussed above with respect to Dymetman et al, Cooperman et al clearly do not disclose or suggest associating *at the time of printing* the type and spatial extent of each tag of coded data with the spatial extent of at least some graphic data. Any association of coded data and graphic data taught by Cooperman et al must occur through a manual process *after* printing. That is clear from Cooperman et al at col. 8, lines 17-19: "Document 508 may be a blank coded substrate, or such a substrate having human-readable information printed thereon." Thus Cooperman et al requires starting with a blank coded substrate and teaches away from the present invention of printing coded data and graphic data together.

In the present Advisory Action the Examiner stated that he disagrees that "the association of coded data and graphic data taught by Cooperman et al must occur through a manual process after printing." The Examiner argued that "Cooperman teaches 'the document is a blank coded substrate or substrate having human-readable information printed thereon.' Therefore, the visible graphic data and the invisible coded data must be associated."

However, the limitations of the present claims do not recite mere association of visible graphic data and invisible coded data; rather, the claims recite "at the time of printing the computer system associates the coded data with a description of the graphic data." Such association at the time of printing is clearly not taught in Cooperman et al. The basic process of Cooperman et al. is illustrated in FIG. 1 and shows a visible information layer (104) being printed on a coded substrate (106) that comprises a layer of machine readable markings (108). (See Cooperman et al. at col. 7, lines 9-17.) Importantly, note that when such printing occurs there is no association between the visible information and the machine readable markings. For example, FIG. 1 shows the visible information layer (104) as depicting a map including a river. But once the above composite printing process is completed, a computer system according to Cooperman et al. cannot identify which machine readable markings (such as the cells or zones (202)) overlay the river on the information layer (104). That is because Cooperman et al. do not teach identifying or associating any spatial extent of features of the visible information layer (104) before printing.

Rather, the visible information (104) is associated with cells (202) on the coded substrate (106) by a user only after the composite printing process illustrated in FIG. 1. That is made clear with reference to several embodiments described in Cooperman et al. See for

example, col. 8, lines 39-42: "In use, processing device 602 extracts from the image data the encoded page identifier and page-location data to obtain an item of data (<pid, loc>) and communicates the item of data in a wired or wireless fashion to a local device...." See also col. 9, lines 19-23: "The annotation ID obtained as in FIG. 8 can be associated with a timestamp in a table or can be used for playback by finding a matching annotation ID in the table and by then using the associated timestamp to cause playback of a portion of the recording." See also col. 10, lines 1-3: "The annotation ID obtained as in FIG. 9 can similarly be associated with a timestamp in a table or can be used for playback by finding a matching annotation ID...."

Wright et al teach a printer that includes visible ink and invisible ink, and an internal program for printing value indicia with visible ink and an authentication code, which uniquely corresponds to the value indicia, with invisible ink. However, Wright et al is concerned with printing simple labels and is not concerned with identifying the location of data on a page. Thus Wright et al do not disclose associating the spatial extent of invisible coded data with the spatial extent of visible graphic data. Nevertheless, the Examiner asserts that combining Wright et al with Cooperman et al teaches the limitations of claim 1. Such a combination however fails to teach the present invention for several reasons.

First, it is improper to combine references where the references teach away from their combination. See *In re Grasselli*, 713 F.2d 731, 743, 218 USPQ 769, 779 (Fed. Cir. 1983). As described above, Cooperman et al explicitly teach away from a simultaneous association of coded data and graphic data as defined in the present claims. Therefore, the possibility that Wright et al. disclose a printer that could be used to print both coded data and graphic data does not mean that a combination of Wright et al and Cooperman et al teaches the present invention.

Second, a teaching or suggestion to make a claimed combination, including a reasonable expectation of success, must be found in the prior art--not in applicant's disclosure. See *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Here, the Examiner claims that the motivation to combine Wright et al into Cooperman et al is that it would allow "the printing system to print both visible and invisible data on a paper at the same time." But the advantages of printing visible and invisible data at the same time, so as to associate the spatial extent of the visible data with the spatial extent of the invisible data, are disclosed only in the applicant's disclosure and not in the prior art. Thus there is no teaching, suggestion or motivation to combine Wright et al into Cooperman et al; and, further, even if such a combination is made, the result does not produce the presently claimed invention.

Also, *a fortiori*, please recognize that printing the composite layers (104, 106) of Cooperman et al. using the printer of Wright et al. does not result in the present invention. For example, referring again to FIG. 1 of Cooperman et al., if the composite map shown is printed using the printer of Wright et al., and thus the visible information layer (104) and the coded substrate (106) are printed by the same Wright et al. printer in a single print process, there is still no association between, for example, the river shown on visible information layer (104) and any overlaying cells (202) of the coded substrate (106). Such association must again occur subsequently through some user interaction with the composite printed sheet. Examples of these user interactions are provided in Cooperman et al. as discussed above.

On the other hand, the present invention explicitly teaches making such associations before receiving any such user interaction. See page 10 of the specification as originally filed at lines 11-16: "The netpage consists of graphic data 2 printed using visible ink, and coded data 3 printed as a collection of tags 4 using invisible ink. The corresponding page

description 5, stored on the netpage network, describes the individual elements of the netpage. In particular it describes the type and spatial extent (zone) of each interactive element (i.e. text field or button in the example), to allow the netpage system to correctly interpret input via the netpage." Thus at the first user interaction with a printed netpage (i.e., an "input via the netpage") an association is already established between graphic data and coded data.

The above distinctions between the present invention and the teachings of Cooperman et al and Wright et al are clearly defined in the present claims. The Applicants submit that the remaining rejections of claims under 35 USC 103(a) are now moot in light of the arguments above.

Therefore it is submitted that the application is now in condition for allowance and the present final rejection should be withdrawn. Reconsideration and allowance of the application is courteously solicited.

Very respectfully,

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